CHAPTER VI—AGRICULTURE, CO-OPERATION AND FORESTS.

(i) Weather and Crops.

455. The districtwar distribution of rainfall according to season was as follows:—

Districts	South-west Monsoon		North-east Monsoon		Total	
	April 1953 to Sept. 1953	Average	Oct. 1953 to March 1954	Average	April 1953 to March 1954	Average
	Inches	Inches	Inches	Inches	Inches	Inches
Bangalore ...	21·3	21·9	13·4	9·1	34·7	31·0
Kolar ...	22·9	19·3	16·9	9·0	39·8	28·3
Tumkur ...	18·9	18·3	15·6	7·8	34·5	26·1
Mysore ...	24·7	19·4	12·5	9·7	37·2	29·1
Mandya ...	21·8	18·5	15·2	9·8	37·0	28·3
Hassan ...	36·2	28·7	13·7	10·0	49·9	38·7
Shimoga ...	64·8	49·4	10·4	7·6	75·2	57·0
Chikmagalur ...	86·8	63·2	15·6	10·3	102·4	73·5
Chitaldrug ...	13·3	15·4	12·9	6·6	26·2	22·0
Bellary ...	18·4	...	8·0	...	26·4	...
State Total ...	32·9	27·1	13·4	8·8	46·3	35·9

456. The highest total rainfall for the year (1st April 1953 to 31st March 1954) was 322·01 inches at Agumbe in Shimoga district. The lowest total rainfall for the year was 11·12 inches gauged at Yerahalli, Hiriyur Taluk, Chitaldrug District.

457. The heaviest fall in 24 hours for the year was again at Agumbe in Shimoga District where a rainfall of 14·00 inches was recorded on 30th June 1953.

(ii) Department of Agriculture.

458. After 20 years of absence, Dr. L. C. Coleman visited the State during the year. He toured the entire State including Bellary and made a rapid study of the

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agricultural progress made by the State during the past 20 years, and expressed his appreciation of the work done by the Department. One of the important events of the year was the merger of seven taluks of Bellary. Another notable event during the year was the application of liquid ammonia, which was introduced by Sri R. Nagan Gowda, Minister for Agriculture and which is attracting the attention of the people and the press. Another important event of the year was the launching of a campaign for scientific paddy growing broadly designated "JAPANESE METHOD OF PADDY CULTIVATION". Record yields exceeding 50 pallas per acre have been obtained.

459. Crop competitions were organised on a large scale. With several new developments, the Department is steadily pursuing its policy within the limitations of finance and personnel of "Service to the Mysore farmer with Science".

Agricultural Prices.

460. The agricultural prices generally showed a downward tendency particularly after harvest and decontrol of rice. Ragi remained decontrolled throughout the year and no procurement was made. In the case of paddy, the procurement was "Voluntary".

461. Pulses ranged from Rs. 50 to Rs. 35 per palla. Only Bengal-gram touched Rs. 65, the lowest price being Rs. 50. Oil seeds market did not show wide fluctuations. Gingelly ruled at Rs. 60—70 a palla. Castor seed varied between Rs. 30 and Rs. 45 per 165 lbs. At Bangalore, cotton seed was sold between Rs. 2 to Rs. 2-8-0 per maund of 24 lbs. Sugar prices were fixed by the Central Government and varied between Rs. 9-12-0 to Rs. 10-8-0 per maund of 24 lbs. Areca prices at Thirthahalli, wellknown for its fine betel nuts ranged between Rs. 32 to Rs. 45 per maund of 24 lbs.

Agricultural Education.

462. Four agricultural institutions worked during the year—Agricultural College, Agricultural School both at Hebbal, the former affiliated to the Mysore University and the latter a three year post secondary course leading to the diploma of Licentiate in Agriculture, two Kannada Agricultural Schools—training farmers' sons.

463. *Agricultural College, Hebbal.*—This was started in 1946. Six batches of students have already graduated from the College and many of them have been employed

as Agricultural Inspectors, Plant Protection Assistants, Research Assistants in the Agricultural Laboratories and as Village Level Workers under the National Extension Service and in the Community Project at Shiralkoppa. The strength of the College was 107 as against 65 in the previous year. The College Herbarium started in 1951 contains nearly 3,000 botanical and mycological specimens. It is being improved by exchanges and collections.

464. *Mysore Agricultural School, Hebbal.*—In the final year, 20 students secured a pass, three merit scholarships and 21 ordinary scholarships were granted.

465. In the Kannada Agricultural Schools at Ramakrishnapura and Somanahalli, no regular course leading to a certificate were given but sons of farmers are being trained in practical agriculture and educational excursions are arranged.

466. The S. K. V. D. Patashala was closed and the building was given to the Department of Education for running a Basic Rural High School.

467. As in the previous year paddy breeding was mainly confined to the Paddy Breeding Station at Nagenahally near Mysore. This work was supplemented to some extent at Hebbal and other farms. Eight major and one minor yield trials of standard, recently evolved and introduced varieties were conducted during the year. Plant Breeding Paddy.

468. One hundred and sixty seven cultures were in trials, 53 being early types and 114 being late. The standard varieties for comparison were Ragi No. 1 (K. 1 early) and Ragi No. 22 (H. 22 late). Ragi.

469. R. 1033 among the early types and R. 0051 and R. 0190 among late ones have given high yields.

470. *Groundnut.*—Groundnut is the most important oil seed crop of the State with an acreage of 2½ lakh acres or more than one-third the oil seed acreage. But with the merger of Bellary another 2·3 lakh acres have been added *i.e.*, the groundnut acreage is very nearly doubled. Twenty-nine new varieties were introduced from various parts of the world. Considerable quantities of pure seed of recommended varieties have been collected for distribution. Oil Seeds.

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471. *Castor.*—Next in improtance to groundnut, castor is grown over roughly 90,000 acres in Mysore. Bellary merger has contributed only about 7,000 acres to the castor acreage.

472. *Cocoanut.*—Merger of Bellary District has not added much to the coconut acreage of Mysore—of nearly $1\frac{3}{4}$ lakh acres. There is no breeding programme for this crop but on the basis of performance, quality, etc., several trees have been selected in various places as mother palms and a scheme for production and distribution of quality seedlings at a very cheap rate of 8 as. per seedling has been in operation during the last three years. This scheme is partly financed by the Indian Central Cocoanut Committee. At the beginning there was only one Nursery at Arsikere, the important Marketing Centre for cocoanut. The nursery was then shifted to Hebbal. Subsequently another was started at Babbur to cater to the needs of the Vanivilas Sagar area where good plantations are raised. But as the demand for departmental seedlings has exceeded the expected supply, another nursery was opened at Visvesvaraya Canal Farm, Mandya during the year. With another 300 acres selected during the year, the total number of mother palms from which quality nuts can be obtained has risen to 1,175.

473. *Cotton.*—With an addition of 2,44,000 acres of cotton to the Mysore's total of 83,000 acres consequent to the merger of Bellary District, Mysore State has become one of the most important cotton producing States in the Indian Union. Two strains which occupy considerable acreages are Sel. No. 69 (medium staple) and M. A. V. long staple.

474. Upland, Egyptian, Cambodia, Western and Asiatic varieties of cotton were also grown during the year.

475. *Sugarcane.*—Although the acreage of sugarcane in Mysore is not very high—about 50,000 acres, Mysore State is one of the principal sugar and jaggery producing regions in India. The Sugar Factory at Mandya is one of the biggest units in the Union. On the merger of seven taluks of Bellary with Mysore there has not only been an accretion of about 8,000 acres of sugarcane but also of the Hospet Sugar Factory. There is a proposal to start a third

Sugar Factory at Shimoga in the very near future. With three Sugar Factories, the State is bound to become one of the most important sugar producing regions in India.

476. The success of the Mandya Sugar Factory is mainly due to the great efforts made by the department since the past three decades in evolving suitable varieties of sugarcane and in the evolution of suitable manurial and cultural schedules. Mysore has been a pioneer with Coimbatore Imperial (now Indian) Sugarcane Station in taking up breeding of sugarcane. While the Imperial Station had to cater to the needs of all India, Mysore concentrated on breeding thick canes for the sub tropical regions represented by the State. In this breeding work, generous assistance has been received from the Indian Council of Agricultural Research and by the Indian Central Sugarcane Committee.

477. With the termination of the thick cane Breeding Scheme sponsored by the Indian Council of Agricultural Research, the Indian Central Sugarcane Committee sanctioned another Scheme in 1946, which has been renewed on a modified form in 1952. This modified scheme terminated on 31st March 1954, but it is proposed to continue it as a departmental scheme. A manurial experiment to study the effect of different doses of phosphate applied broadcast and at various depths on the yield of sugar content of sugarcane was laid.

478. *Areca.*—Under a Scheme jointly financed by the Indian Central Arecanut Committee and the State Government, an Areca Research Station was started last year. The Scheme was given effect to in December 1952. The Research Station sanctioned for a ten year period at a cost of Rs. 3·82 lakhs is located at Yedihalli in Thirthahalli Taluk, about 40 miles from Shimoga. The object of the scheme is to improve the yield and quality of arecanuts in Mysore by starting a nursery from selected palms evolving suitable manurial, cultural and irrigational schedules, organising effective plant protection, etc.

479. The Scheme for improvement of tuber crops—sweet potato in particular is operated with funds partly provided by the Indian Council of Agricultural Research.

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Crop Improvement.

480. Various measures were undertaken for crop improvement through adequate and efficient fertilization, compost production, distribution of improved varieties, intensive campaigns etc.

481. Under a scheme for the conduct of trials with different types of fertilisers by U.S.A. under the Technical co-operation agreement, a 15 acre farm at Veerapura near Bhadravathi was taken up. The area is both suitable for the experiment and to be a representative of *Malnad* soils. Summer cropping is also possible as irrigation facilities are available. It has now become possible to conduct sound manurial trials and evolve a suitable manurial schedule for paddy in *Malnad*, which is the granary of the State so far as rice is concerned.

Compost Scheme.

482. The Rural Compost Scheme which was part of the Post-war Development Plans of the State was terminated in 1952—the Government of India having intimated that they would not finance it. The Urban Compost Scheme which had been also terminated in 1949 was again revived early in 1953 with financial assistance from the Centre. The number of urban compost centres was 105.

483. With a view to ensure a more efficient and at the same time more sanitary utilisation of sewage-particularly the effluent, the Government of India, on the recommendation of Dr. Talati, Sewage and Compost Devolopment Officer, a loan of Rs. 6 lakhs to the Bangalore City Improvement Trust Board and Rs. 8 lakhs to the Mysore City Municipality for construction of sewage disposal works and to extend the area under irrigation from the effluents was sanctioned. The construction of sewage clarification and disposal works was taken up in both the Cities. The sewage utilisation scheme at Bangalore proposed to treat a daily flow of 3 million gallons of sewage flowing in one of the three main out-falls from the City—the Vrishabhavathi Valley running from Bangalore to Kengeri. When the programme is completed it will provide, besides a large quantity of sludge, enough effluent to irrigate more than 500 acres of land in the Vrishabhavathi valley.

484. At Mysore which was a pioneer in starting a sewage farm and in starting compost work in the State, there is already a unit for proper disposal of sewage. With

the help of the Government of India loan, the existing septic tank is being extended to enable clarification of all the quantity of water drained into the outfall. The work is expected to be completed shortly and when this is done the effluent will irrigate about 350 acres.

485. In addition to these two major works, attempts were also made to induce 21 Town Municipalities in different parts of the State to take up sewage utilisation schemes.

Cotton Expansion Scheme.

486. The Cotton Expansion Scheme which is in operation since 1950-51 was further extended by one year by the Government of India, who are sponsoring and financing the scheme as part of an All India Programme to step up production of long and medium stapled cottons with a view to reach as much self sufficiency as possible in these types of cotton. The merger of Bellary brought in over two lakh acres of cotton and Mysore State is now one of the most important cotton regions in the Indian Union. The production of cotton also has increased remarkably and it is estimated that it may well reach 77,686 bales in 1953-54 against 18,200 bales in the year.

Crop Competitions.

487. Crop Competitions are one of the most potent methods for stepping up crop yields. A scheme for holding such competitions for paddy and ragi was sanctioned in April 1953. Under this scheme, a State Prize of Rs. 1,000, District Prize of Rs. 200 and Taluk Prizes of Rs. 50 were instituted.

Coconut Nursery Scheme.

488. This Scheme for raising quality seedlings from good parent palms for distribution to growers at very cheap rates was launched in May 1951 with financial help from the Indian Central Coconut Committee. The Nursery which was started in Arsikere was transferred to Hebbal last year. In addition to this main nursery there are two Sub-nurseries at Babbur and Visvesvaraya Canal Farms.

Biological Control Scheme.

489. The Agricultural Department of Mysore has been a pioneer in India in adopting on a large scale biological methods for control of plant pests, particularly the sugarcane borer by mass releases of the parasite *Trichgramma minutum*. Nearly twenty years ago the first Parasite Laboratory in India for rearing of parasites was established by the Department at Mandya.

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Coffee Borer Control.

490. The Scheme which is in operation from a long time was sanctioned for a further period of one year up to 31st March 1954. The coffee growing area in the Chickmagalur District was divided into 13 Centres.

Agricultural Farms.

491. With the merger of Bellary District, the number of farms increased by three. Another addition was the Veerapura Farm near Bhadravathi under the T.C.A. Fertiliser Scheme.

Central Farm, Hebbal.

492. This is the oldest farm completing 50 years in 1954. The farm was started as an adjunct to the Agricultural Laboratories at Bangalore. It provides facilities for practical work to the Agricultural College and Agricultural School students.

Visvesvaraya Canal Farm.

493. This is the largest of all farms, with a total extent of 660 acres of which 483 acres are available for cultivation. This farm started in 1931, is situated in the heart of the Visvesvaraya Canal System. It was primarily started as a large scale demonstration farm for the whole command area under the Visvesvaraya Canal System. This Station is gradually becoming the main research station for the red soils of the entire State.

494. The Pilot Training Project for training Village Level Workers was operated on this Farm.

Government Experimental Farm, Babbur.

495. This Farm is situated under the Vanivilas Sagar Command area and comprises both of red and black cotton soils typical of Chitaldrug District. The earlier cotton work was conducted on this farm and Sel. No. 69, a medium, staple fine popular cotton occupying nearly 90 per cent of the short staple cotton area was evolved on this farm. All the Asiatic Cotton work as well as work on *jowar*, minor millets and oilseeds are conducted on this farm. A Cocoanut Nursery has also been established to serve the needs of this area.

Mysore Agricultural and Experimental Union.

496. The Mysore Agricultural and Experimental Union which is the liaison body between the Department and the progressive farmer gathered great strength during the year. There were 350 life members, 3,000 ordinary members paying Rs. 3 per annum and 3,325 four anna members. The Union has been publishing continuously for the past thirty years a monthly agricultural journal in Kannada and a quarterly journal in English. In

addition, it has undertaken a programme for publishing popular booklets on agricultural themes.

Pilot Training-*Cum* Development Scheme.

497. This project was established in March 1952. The project consists of two groups of activities (i) Training of village level and extension workers for the Community Project, National Extension blocks etc., at Mandya and (ii) an extension project for intensive work in 100 villages in Malavalli. Nineteen villages are attached to this centre in order that the trainees may have a first hand experience of villages, their needs and problems and also in order that they may practice extension methods and evaluate them themselves. The trainees at the Centre are helped to acquire technical knowledge relating to rural uplift and technical skills for efficient improvement work and to develop rural leadership. The third and fourth batches (77 trainees) were trained during the year; thirty trainees who were granted certificates in the previous year were appointed as *Gram Sevakas* in the Community Project.

Extension Project Centre, Malavalli.

498. This Centre was started on 5th August 1952. The jurisdiction of this Centre extends to 100 villages covering an area of 178 sq miles with a population of nearly a lakh. The villages are divided into 15 groups, each group of five to eight villages being under a village level worker. The groups are built up into four zones, each zone under an Assistant Extension Officer.

499. The broad objectives of the Centre are (1) elimination of poverty by increasing the earning capacity of rural people by better methods of agriculture and animal husbandry, (2) elimination of illiteracy by new schools, adult education classes, regular attendance in existing schools etc., (3) elimination of ill-health and disease by village cleaning, construction of latrines, improved drainage, rat control etc., and (4) promotion of better citizenship by organisation of young farmers' clubs, growers' association, co-operative society, organisation of community labour and harnessing initiative and rural leadership.

(iii) Sericulture.

Market Conditions of Silk Industry.

500. The prices of reeling cocoons were a little below or equal to the economic price determined by the Indian Tariff Commission in the former half of the year.